#### **REMARKS**

Claims 1 through 20 are pending in the Application.

Claims 4, 5, 12 and 13 are allowed.

Claims 1 through 3, 6 through 11 and 16 through 19 have rejected.

Claims 14, 15 and 20 have been objected to.

Claims 1, 6, 8 through 12, 14, 15, 17, 19 and 20 have been amended by Applicant.

#### Discussion of the claim objections.

Examiner has objected to claim 6 because of an informality. Applicant has amended claim 6 to correct the informality.

Claims 14, 15 and 20 have been objected to as being dependent upon a rejected base claim. Examiner has indicated these would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has so amended claims 14, 15 and 20 to be in independent form including all of the limitations of the base claim and any intervening claims.

# Discussion of the claim rejections

Examiner has rejected claim 8 under 35 U.S.C. § 102 (b) as being anticipated by USPN 6,127,783 (Pashley). Examiner has rejected claims 1 through 3, 6 8 through 11 and 17 through 19 under 35 U.S.C. § 103 (a) as being unpatentable over USPN 6,566,589 (Hoelen) in view USPN 6,674,060 (Antila).

Examiner has rejected claims 7 and 16 under 35 U.S.C. § 103 (a) as being unpatentable over Hoelen in view Antila and further in view of Pashley.

Applicant has amended the claims to overcome the rejections. Applicant respectfully traverses the rejections as to the claims as amended. Below Applicant sets out subject matter in each of the rejected independent claims not disclosed or suggested by the cited art. On this basis, Applicant believes all the pending claims are allowable.

### Discussion of Independent claim 1

Claim 1 sets out a lighting system that includes a mixing cavity that mixes light, an optical cable attached to the mixing cavity and a color sensor attached to the optical cable. The color sensor is located outside the mixing cavity and at least a portion of the optical cable is outside the mixing cavity. This is not disclosed or suggested by the cited art.

In Hoelen, for example, the panels 101 and 111 and sensors 110 and 120 are all completely within housing 128. See Figure 3A. In Pashley, cable 28 and photo diode 24 are enclosed within housing 18. None of the cited references disclose or suggest transport of light out of a mixing cavity for detection by a sensor, as in the claims of the present case.

## Discussion of Independent claim 8

Claim 8 sets out a lighting system that includes a mixing cavity that mixes light, an optical cable attached to the mixing cavity and a color sensor

attached to the optical cable. The color sensor is located outside the mixing cavity and at least a portion of the optical cable is outside the mixing cavity. This is not disclosed or suggested by the cited art.

In Hoelen, for example, the panels 101 and 111 and sensors 110 and 120 are all completely within housing 128. See Figure 3A. In Pashley, cable 28 and photo diode 24 are enclosed within housing 18. None of the cited references disclose or suggest transport of light out of a mixing cavity for detection by a sensor, as in the claims of the present case.

#### Discussion of Independent claim 9

Claim 9 sets out a lighting system that includes a mixing cavity, a sensor means and a cable means. The sensor means comprises a plurality of photo sensors. Each photo sensor from the plurality of photo sensors has an integrated color filter. The plurality of photo sensors are located outside the mixing cavity and at least a portion of the cable means is outside the mixing cavity. This is not disclosed or suggested by the cited art.

In Hoelen, for example, the panels 101 and 111 and sensors 110 and 120 are all completely within housing 128. See Figure 3A. In Pashley, cable 28 and photo diode 24 are enclosed within housing 18. None of the cited references disclose or suggest transport of light out of a mixing cavity for detection by a sensor means, as in the claims of the present case.

# Discussion of Independent claim 17

Claim 17 sets a out a method that includes mixing light within a mixing cavity. The light is transported from the mixing cavity, through an optical cable, to a color sensor. The color sensor is located outside the mixing cavity and at least a portion of the optical cable is outside the mixing cavity. This is not disclosed or suggested by the cited art.

In Hoelen, for example, the panels 101 and 111 and sensors 110 and 120 are all completely within housing 128. See Figure 3A. In Pashley, cable 28 and photo diode 24 are enclosed within housing 18. None of the cited references disclose or suggest transport of light out of a mixing cavity for detection by a sensor, as in the claims of the present case.

### Conclusion

Applicant believes this Amendment has placed the present application in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

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